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Atty. Docket: ZL855/02001
Revetment Block and Mat

REMARKS

Reconsideration of the application is respectfully requested. After entry of the enclosed amendment, claims 1-39 remain in the application. Claims 1,10,17,20,25,30,34 and 35 have been amended to more particularly claim the present invention. Claim 1 has been amended to correct a grammatical error and Claim 30 has been amended to correct a typographical error in the originally filed claims.

35 U.S.C. § 102 Rejection of However 1-4 and 37-39

The Examiner has rejected claims 1-4 and 37-39 under 35 U.S.C. § 102 as being anticipated by U.S. Patent 4,465,398, issued to Knudsen. Applicant's attorney respectfully traverses this ground of rejection.

The Examiner alleges that Knudsen teaches each element of claims 1-4 and 37-39 therefore anticipating said claims. Knudsen teaches a plurality of blocks used in forming a revetment mat wherein each block includes an opposed pair of hinge openings adjacent a first pair of opposed walls and also includes an opposed pair of hinge pins extending from a second pair of opposed walls spaced from the first pair of opposed walls. The hinge pins of a first block are received by the hinge openings of an adjacent second block in order to form a revetment mat.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Claims 1 and 37 each claim first and second sidewalls having at least one vertical surface

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and inwardly and outwardly extending transition surfaces between said top and said bottom surfaces. As shown in Figs. 1-2 of the Knudsen reference, the block does not have first and second sidewalls including inwardly extending transition surfaces. Instead, Knudsen teaches first and second opposed sidewalls with hinge pins extending *outwardly*, not inwardly, from opposed sidewalls such that the hinge pin may be positioned within the hinge opening of an adjacent block. In addition, claim 37 claims first and second sidewalls each sidewall having an upper vertical surface and a lower vertical surface. Knudsen also fails to disclose upper and lower vertical surfaces disposed on sidewalls.

Since the Knudsen reference fails to teach all of the claimed elements of claims 1 and 37 of the instant application, Applicant's attorney asserts that claims 1 and 37 are allowable. Claims 2-4 and 38-39 depend from claims 1 and 37 respectively and include all of the limitations of the independent claim. Claims 2-4 and 38-39 are believed to be allowable and therefore Applicant's attorney respectfully requests this ground of rejection be withdrawn.

35 U.S.C. § 102 Rejection of Claims 17-22 and 25-28

Claims 17-19

The Examiner has rejected claims 17-19 under 35 U.S.C. § 102 as being anticipated by U.S. Patent 5,921,710, issued to Scales. Applicant's attorney has amended claim 17 rendering this ground of rejection moot.

The Examiner alleges that the Scales '710 reference teaches each element of claims 17-19. Upon closer review, Scales '710 teaches a revetment block having a nose extending from opposed sides of the block, wherein a plurality of blocks are used to form a revetment mat. In

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addition Scales '710 teaches a second block having a nose and an inwardly extending cavity portion.

Applicant's attorney has amended claim 17 to include the limitation at least two of said sidewalls being opposed sidewalls, said opposed sidewalls each having inwardly and outwardly extending transition surfaces defining said interlocks. To the contrary, the newly amended limitation is not shown by the Scales '710 reference. Although Scales '710 shows an inwardly extending cavity on one side and an outwardly extending nose on an opposed side, the reference does not show opposed sidewalls each having inwardly and outwardly extending surfaces defining interlocks. Thus claim 17 is believed to be allowable. In addition, claims 18-19 depend from claim 17 and therefore include all the limitations of claim 17. Therefore Applicant's attorney respectfully requests this ground of rejection be withdrawn.

Claims 20-22

The Examiner has rejected claims 20-22 under 35 U.S.C. § 102 as being anticipated by U.S. Patent 5,921,710, issued to Scales. Applicant's attorney has amended claim 20 rendering said rejection moot.

The Examiner alleges that the Scales '710 reference teaches each element of claim 20 therefore anticipating the claim. As previously discussed, the Scales '710 reference teaches a first block having a nose extending from each of first and second opposed sides and a second block having a nose on a first side and a cavity on an opposite side wherein a plurality of blocks are used to form a revetment mat.

Applicant's attorney has amended claim 20 to more clearly define the instant invention.

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Applicant's attorney has added the word "inclined" in describing the transition surface. The Scales '710 reference fails to disclose an inclined transition surface of the instant invention. Instead, the sidewalls of the block including each nose and the cavity are all vertical walls. Applicant's attorney asserts that claim 20 is allowable and respectfully requests this ground of rejection withdrawn.

Claims 21-22 depend from claim 20 and therefore include all of the limitations of the amended claim 20. Thus, claim 20 is asserted to be allowable and therefore Applicant's attorney respectfully requests this ground of rejection be withdrawn.

Claims 25-28

The Examiner has rejected claims 25-28 under 35 U.S.C. § 102 as being anticipated by U.S. Patent 5,921,710, issued to Scales. Applicant's attorney has amended claim 25 rendering said rejection moot.

The Examiner alleges that the Scales '710 reference teaches all of the elements of claim 25. As previously discussed, the Scales '710 reference teaches a first block having a nose extending from each of first and second opposed sides and a second block having a nose on a first side and a cavity on an opposite side wherein a plurality of blocks are used to form the revetment mat. However, Applicant's attorney has amended claim 25 to more clearly define the patentable subject matter of the instant invention. As amended, claim 25 states the first and second sidewall having inwardly and outwardly "inclined" transition surfaces. The Scales '710 reference does not disclose inclined surfaces but instead teaches a block having sidewalls, opposed noses, and a cavity each having vertical walls. As such, Applicant's attorney asserts that

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claim 25 is allowable. In addition, claims 26-28 depend from claim 25 and include all of the limitations of claim 25. Applicant's attorney asserts that claims 26-28 are also in condition for allowance.

35 U.S.C. § 103(a) Rejection of Claims 5-9

The Examiner has rejected claims 5-9 under 35 U.S.C. 103(a) as being obvious over Knudsen in view of Scales ('075). Applicant's attorney respectfully traverses this ground of rejection.

The Examiner alleges that Knudsen discloses the claimed invention except for the tapered apertures, the dome, and the ducts. The Examiner further states Scales teaches that it is known to provide tapered apertures 10, a dome 24, and ducts 5 and therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide tapered apertures, a dome, and ducts as taught by Scales in order to facilitate drainage and to facilitate connection of abutting blocks. However, Knudsen teaches a plurality of blocks used in forming a revetment mat wherein each block includes an opposed pair of hinge openings adjacent a first pair of opposed walls and also includes an opposed pair of hinge pins extending from a second pair of opposed walls spaced from the first pair of opposed walls. The hinge pins extend outwardly from opposed sidewalls of the block in order to be received by the hinge openings of an adjacent second block forming a revetment mat. To the contrary, claims 5-9, which include the limitations of claim 1, describe first and second sidewalls each having at least one vertical surface and inwardly and outwardly extending transition surfaces between said top and said bottom surfaces. As shown in Figs. 1-2 of the Knudsen reference, the block fails to provide first

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and second sidewalls each including inwardly extending transition surfaces. Instead Knudsen teaches first and second opposed sidewalls with hinge pins extending *outwardly*, not inwardly, from opposed sidewalls.

U.S. Patent 4,370,075, issued to Scales, fails to aid this lack of disclosure. The Examiner alleges that Scales '075 reference provides tapered apertures, a dome, and ducts extending through a block. Upon further review, Scales teaches a block having an upper domed portion surrounding first and second tapered columns or apertures extending through said block. However, Scales fails to provide first and second sidewalls each having at least one vertical surface and inwardly and outwardly extending transition surfaces as presently claimed.

In addition, the '075 reference to Scales teaches away from the Knudsen reference. As shown in Figs. 1, 3, 13, and 14, Scales teaches the use of a cable passing through each of the revetment blocks of a revetment mat. To the contrary, the Knudsen reference teaches a mat having a plastic or steel bar passing only through the outer rim or edges of the revetment mat, instead of through each block. More specifically, the Knudsen reference states at Column 4, lines 38-40, "reinforcing bars or wires may extend all along the rims of the revetment, cf. 33,33a,33b, and 33c." Figure 4 of the Knudsen reference shows that these cited portions form the outer edges of the revetment mat only. Thus, the Knudsen reference teaches away from the Scales '075 reference. For these reasons, claims 5-9 are believed to be allowable and Applicant's attorney respectfully requests this ground of rejection be withdrawn.

35 U.S.C. § 103(a) Rejection of Claims 10-16, 23-24, 29-36

Claims 10-16

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The Examiner has stated that claims 10-16 are rejected under 35 U.S.C. § 103(a) as being obvious over Scales ('710) in view of Scales ('075). Applicant's attorney has amended claim 10 rendering this ground of rejection moot.

The Examiner alleges that Scales ('710) discloses a revetment block including first and second sidewalls and corner spaces defining an interlock, but states that the '710 reference does not teach a dome and tapered apertures. The Examiner next alleges that Scales '075 reference teaches an aperture 10 and dome 24 and the combination of Scales references therefore renders the instant application obvious.

To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). Further, prior art references must be considered in their entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). Applicant's attorney has amended claim 10 to more clearly define the instant invention. As amended herein, claim 10 now claims at least one inclined transition surface between a plurality of vertical surfaces. As previously described, the '710 reference discloses a revetment block having a nose extending from opposed sidewalls. The '710 reference fails to teach or suggest a tapered sidewall having at least one inclined transition surface extending between a plurality of vertical surfaces. All of the walls of the '710 reference are vertical walls. The '075 reference fails to aid this lack of disclosure since the '075 reference also fails to disclose a plurality of inclined transition surfaces extending between a plurality of vertical surfaces. Since

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the combination of cited references fails to teach or suggest all of the elements of the instant invention Applicant's attorney asserts that claim 10 is allowable and respectfully requests this ground of rejection withdrawn. In addition, claims 11-16 depend from claim 10 and therefore include all of the limitations of claim 10. Claims 11-16 are also believed to be allowable and Applicant's attorney further respectfully requests this ground of rejection withdrawn.

Claims 23-24

The Examiner has rejected claims 23-24 under 35 U.S.C. § 103(a) as being obvious over Scales '710 in view of Scales '075. Applicant's attorney has amended claim 20, from which claims 23-24 depend, rendering said ground of rejection moot.

The Examiner alleges that Scales '710 teaches all of the elements of the claimed invention except for the tapered apertures and dome. The Examiner further alleges that these elements are provided by the '075 Scales reference and therefore it would have been obvious to one of ordinary skill in the art to combine said references rendering the instant invention obvious.

As previously discussed, Applicant's attorney has amended claim 20 to more clearly define the instant invention and claims 23-24 depend from claim 20 and therefore include the limitations of claim 20. Claim 20, as amended, now claims tapered interlocks defining corner spaces having vertical and inclined transition surfaces therein. The Scales '710 reference fails to describe an inclined transition surface and instead teaches a block having first and second noses extending from opposed sidewalls, wherein all of the walls have vertical sides. The Scales '075 reference also fails to teach an inclined transition surface as currently claimed. A combination of

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the Scales references also fails to disclose the claimed invention. Since claims 23-24 depend from claim 20 and therefore include all of the limitations of claim 20, Applicant's attorney asserts that claims 23-24 are in condition for allowance. Applicant's attorney respectfully requests this ground of rejection be withdrawn.

Claims 29

The Examiner has rejected claim 29 under 35 U.S.C. § 103(a), as being unpatentable over Scales '710 in view of Scales '075. Applicant's attorney has amended claim 25, from which claim 29 depends, render said ground of rejection moot.

The Examiner alleges that the '710 reference and '075 reference teach all of the elements of claim 29. The '710 reference teaches a first block having a nose extending from each of first and second opposed sides and a second block having a nose on a first side and a cavity on an opposite side. The '075 reference teaches a block having a dome and tapered aperture extending through the block. However, as previously discussed, claim 25 has been amended to include the limitation of an inclined transition surface. Neither the '710 reference nor the '075 reference, alone or in combination, teach or suggest an inclined transition as presently claimed. Claim 29 depends from claim 25 and therefore includes all of the limitations of claim 25. As such, Applicant's attorney asserts claim 29 to be allowable and therefore respectfully requests this ground of rejection to be withdrawn.

Claims 30-33

The Examiner has rejected claims 30-33 under 35 U.S.C. § 103(a), as being obvious over Scales '710 in view of Scales '075. Applicant's attorney has amended claim 30 rendering said

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rejection moot.

As previously described, the Examiner alleges that the '710 reference discloses a revetment block including first and second sidewalls and corner spaces defining an interlock and the Scales '075 reference discloses a dome and tapered apertures thereby rendering the instant invention obvious.

Applicant's attorney has amended claim 30 to describe first and second sidewalls each having a plurality of vertical surfaces and inwardly and outwardly "inclined" surfaces between said plurality of vertical surfaces. The Scales references '710, '075 fail to teach inwardly and outwardly inclined surfaces between a plurality of vertical surfaces either alone or in combination. As discussed above the blocks of the Scales '710 reference all have vertical walls and the Scales '075 reference teaches a dome and tapered apertures. However neither reference teaches inwardly and outwardly inclined surfaces between a plurality of vertical surfaces. Since the Scales references fail to teach inwardly and outwardly inclined surfaces between a plurality of vertical surfaces either alone or in combination, Applicant's attorney asserts that claim 30 is allowable. Moreover, claims 31-33 depend from claim 30 and therefore include all of the limitations of claim 30. As such Applicant's attorney respectfully requests this ground of rejection be withdrawn.

Claims 34-36

The Examiner has rejected claims 34-36 under 35 U.S.C. § 103(a) as being obvious over Scales '710 in view of Scales '075. Applicant's attorney has amended claims 34 and 35 rendering this ground of rejection moot.

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The Examiner alleges that Scales '710 discloses a revetment block including first and second sidewalls and corner spaces defining an interlock, but states that the '710 reference does not teach a dome and tapered apertures. The Examiner next alleges that Scales '075 teaches an aperture 10 and dome 24 and the combination of reference therefore renders the instant application obvious. Applicant's attorney has amended claims 34-35 to include inwardly and outwardly inclined transition surfaces along the first and second sidewalls. The Scales'710 reference fails to disclose an inwardly and an outwardly inclined transition along the first and second sidewalls. Instead, the '710 reference teaches a block having a first and second nose extending from opposed sidewalls wherein the sidewalls and noses all have vertical walls. In addition the Scales '075 reference also fails to disclose an inwardly and outwardly inclined transition surfaces along the first and second sidewalls. The Scales '075 reference teaches a revetment block having a dome and tapered apertures extending through said block. In other words, the '710 and '075 references fail to teach or suggest, either alone or in combination, first and second sidewalls each having inwardly and outwardly inclined surfaces. Claim 36 depends from claim 35 and therefore includes all of the limitations of claim 35. Applicant's attorney asserts that claims 34-36 are in condition for allowance and respectfully requests that the Examiner withdraw this ground of rejection.

Conclusion

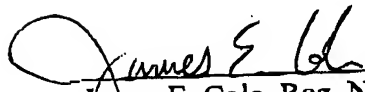
Applicants assert that the instant application is in condition for allowance. Applicant's therefore respectfully request that the Examiner allow the pending claims. However, if the Examiner believes there are other unresolved issues in this case, Applicant's attorney of record

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Respectfully submitted,

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